# ITEM 799 SPECIAL SPECIFICATION

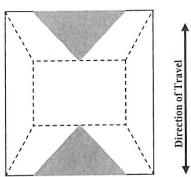
## SPEED HUMPS, TYPE II MODULAR RUBBER CUSHIONS

#### **GENERAL:**

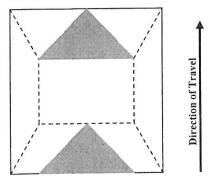
This specification sets forth the minimum acceptable requirements for modular rubber cushions for use at approved speed hump locations.

### **GENERAL REQUIREMENTS:**

- 1. Pre-formed components manufactured from rubber
  - 1.1. Each component unit shall be 3" high
  - 1.2. The side gradient shall be between 1:4 and 1:8
  - 1.3. The ramp gradient shall be between 1:8 and 1:10
  - 1.4. The transition from the street shall not exceed ½ inch
  - 1.5. The cushion length shall be a minimum 78 inches
  - 1.6. The cushion width shall be 74 to 75 inches
  - 1.7. The cushions shall be black in color
  - 1.8. The markings shall be white in color, triangular in shape, and integral to the pre-formed rubber components
    - 1.8.1. Type A markings (not to scale)



1.8.2. Type B markings (not to scale)



1.9. Shore hardness shall be a minimum of 65. The manufacturer shall provide test data from an independent test lab confirming the product meets the minimum criteria with

the bid submittal. Test data shall be provided for each shipment. An outline of the testing procedures shall be provided for review and approval with the bid submittal.

1.10. Tensile strength shall be a minimum of 500 psi. The manufacturer shall provide test data from an independent test lab confirming the product meets the minimum criteria. The test data shall be provided for each shipment. An outline of the testing procedures shall be provided for review and approval with the bid submittal.

1.11. The riding surface shall be smooth in texture for the duration of the warranty period, at a minimum, as determined by the City Inspector.

2. Rigid reinforcement perpendicular to the flow of traffic

3. Sufficient stainless/galvanized steel mounting bolts or hex head screws/fasteners per cushion

3.1. Minimum 10mm x 100mm or equivalent

- 4. Plastic or nylon screw anchors
  - 4.1. Minimum 14mm x 75mm or equivalent

5. Metal washers

5.1. Minimum 10mm or equivalent

- 6. Quick-set, two component epoxy/adhesive. Contractor shall submit manufacturer's material specifications for review and approval with the bid submittal.
- 7. Rubber/nylon caps/plugs

#### WARRANTY:

The speed cushion and all associated equipment shall be fully warranted against defects and/or failure in design, material and workmanship in accordance with the manufacturer's standard warranty, or for a minimum of two (2) years from the date of final acceptance, whichever is greater. All material supplied shall have no less than one hundred percent (100%) of the manufacturer's standard warranty remaining on the date that the material invoices are submitted for payment. Any material with less than 100 percent (100%) of its warranty remaining will not be accepted by the City.